Claim Objections

The Examiner has objected to claims 1, 6 and 8 as reciting the "maximum radius of curvature of the at least one reinforcement fiber before it begins to shear", which is unclear due to the term "maximum". The Examiner has suggested the word "minimum" be substituted for the word "maximum" in the claims. Applicants have amended claims 1, 6 and 8 to comply with the correction requested by the Examiner. Applicants believe such amendments have antecedent basis.

Rejection of Claims 1, 3 and 6-13 Under 35 U.S.C. § 112

Applicants have amended independent claims 1, 6 and 8 to delete the term "shear" and to include the phrase "break due to a tensile stress". Applicants respectfully submit that such amendments have antecedent basis. The critical bending point radius of the reinforcement fiber and the formula to determine the critical bending point radius are disclosed in the specification and are recited in claims 1, 6 and 8. As a function of such a critical bending point radius and as a variable of the formula to determine the critical bending point radius, the tensile strength of the reinforcement fiber is required. Therefore, Applicants respectfully request withdrawal of the rejection of the claims under 35 U.S.C. §112 as the specification and claims, as amended, enable one of ordinary skill in the art to practice the invention.

Amendments to Claims Under 37 C.F.R. § 1.121(c)

Amendments to the pending claims in the present application are reflected in the listing of claims below. This listing of claims will replace all prior versions, and listings, of claims in the application. Claims 1, 6 and 8 have been amended herein, and claims 3, 7 and 9 have been cancelled. In addition, new claims 14 and 15 have been added.

1. (Currently amended) A premise cable connector for aiding in coupling a premise cable to an adapter, wherein the premise cable has at least one optical fiber and at least one reinforcement fiber, the premise cable connector comprising:

a crimp ring configured to couple with a base ring; and

a base ring having a leading edge, wherein the at least one reinforcement fiber is secured over said leading edge and underneath said crimp ring such that at least a portion of

the at least one reinforcement fiber is disposed between the crimp ring and the base ring, the leading edge defining a radius of curvature greater than or equal to a critical bending point radius of the at least one reinforcement fiber, and the at least one reinforcement fiber having a radius of curvature that is greater than or equal to its critical bending point radius, and wherein said crimp ring is coupled without reducing the load bearing strength of the at least one reinforcement fiber, and the critical bending point radius being a ~~maximum~~ minimum radius of curvature of the at least one reinforcement fiber before it begins to ~~shear~~ break due to a tensile stress and being a function of a diameter of the at least one reinforcement fiber, an elastic modulus of the at least one reinforcement fiber, and a tensile strength of the at least one reinforcement fiber, the critical bending point radius being determined by the formula R1 = ED/2T wherein:

R1 is the critical bending point radius;

E is an elastic modulus of the at least one reinforcement fiber;

D is a diameter of the at least one reinforcement fiber; and

T is a tensile strength of the at least one reinforcement member.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Currently amended) A method for coupling a premise cable having at least one ~~reinforcing~~ reinforcement fiber and at least one optical fiber to an adapter using a crimp style connector without reducing the load bearing strength of the at least one reinforcement fibers, the method comprising the steps of:

calculating a critical bending point radius of the at least one reinforcement fiber, the critical bending point radius being a ~~maximum~~ minimum radius of curvature of the at least

one reinforcement fiber before it begins to ~~shear~~ break due to a tensile stress and being a function of a diameter of the at least one reinforcement fiber, an elastic modulus of the at least one reinforcement fiber, and a tensile strength of the at least one reinforcement fiber, the critical bending point radius being determined by the formula R1 = ED/2T wherein:

R1 is the critical bending point radius;

E is an elastic modulus of the at least one reinforcement fiber;

D is a diameter of the at least one reinforcement fiber; and

T is a tensile strength of the at least one reinforcement member;

selecting a base ring having a leading edge having a first radius of curvature, wherein said first radius of curvature is greater than or equal to said calculated critical bending point radius;

securing the at least one reinforcement fiber around ~~a~~ the leading edge of said base ring; and

crimping a crimp ring over said base ring, the crimp ring being configured and disposed such that at least a portion of the at least one reinforcement fiber is disposed between the crimp ring and the base ring.

7. (Cancelled)

8. (Currently amended) A method for coupling a premise cable having at least one ~~reinforcing~~ reinforcement fiber and at least one optical fiber to an adapter using a crimp style connector without reducing the load bearing strength of the at least one reinforcement fiber, the method comprising the steps of:

selecting a base ring having a leading edge having a first radius of curvature greater than or equal to a critical bending point radius of the at least one reinforcement fiber, the critical bending point radius being a ~~maximum~~ minimum radius of curvature of the at least one reinforcement fiber before it begins to ~~shear~~ break due to a tensile stress;

determining the critical bending point radius of the at least one reinforcement fiber using the formula R1 = ED/2T wherein:

R1 is the critical bending point radius;

E is an elastic modulus of the at least one reinforcement fiber;

D is a diameter of the at least one reinforcement fiber; and

T is a tensile strength of the at least one reinforcement member;

selecting a reinforcement fiber having a critical bending point radius that is less than or equal to said first radius of curvature;

securing the at least one reinforcement fiber around the leading edge of said base ring; and

crimping a crimp ring over said base ring, the crimp ring being configured and disposed such that at least a portion of the at least one reinforcement fiber is disposed between the crimp ring and the base ring.

9. (Cancelled)

10. (Previously presented) The premise cable connector of claim 1, wherein the crimp ring is further configured such that a portion of the crimp ring adjacent and terminating into a first end of the crimp ring is curved inward such that the portion couples to the leading edge of the base ring where the crimp ring is coupled to the base ring.

11. (Previously presented) The premise cable connector of claim 1, further comprising a flexible sleeve, the flexible sleeve being configured such that the flexible sleeve is disposed over the crimp ring where the crimp ring is coupled to the base ring.

12. (Previously presented) The method of claim 6, wherein the crimp ring is configured such that a portion of the crimp ring adjacent and terminating into a first end of the crimp ring is curved inward such that the portion couples to the leading edge of the base ring where the crimp ring is coupled to the base ring.

13. (Previously presented) The method of claim 6, further comprising placing a flexible sleeve over the crimp ring where the crimp ring is disposed over the base ring.

14. (New) A premise cable connector for aiding in coupling a premise cable to an adapter, wherein the premise cable has at least one optical fiber and at least one reinforcement fiber, the premise cable connector comprising:

a crimp ring configured to couple with a base ring;

a base ring having a leading edge wherein the at least one reinforcement fiber is secured over the leading edge and underneath the crimp ring such that at least a portion of the at least one reinforcement fiber is disposed between the crimp ring and the base ring, and wherein the crimp ring is coupled to the base ring without reducing the load bearing strength of the at least one reinforcement fiber;

the crimp ring having a portion adjacent and terminating into a first end of the crimp ring configured to curve inward such that the portion couples to the leading edge of the base ring where the crimp ring is coupled to the base ring;

the leading edge of the base ring defining a radius of curvature greater than or equal to a critical bending point radius of the at least one reinforcement fiber, and the at least one reinforcement fiber having a radius of curvature that is greater than or equal to its critical bending point radius, and wherein

the critical bending point radius being a minimum radius of curvature of the at least one reinforcement fiber before it begins to tear due to a tensile stress, and being a function of a diameter of the at least one reinforcement fiber, an elastic modulus of the at least one reinforcement fiber, and a tensile strength of the at least one reinforcement fiber.

15. (New) The premise cable connector of claim 15, further comprising a flexible sleeve, the flexible sleeve being configured such that the flexible sleeve is disposed over the crimp ring where the crimp ring is coupled to the base ring.